

GAO

Briefing Report to the Chairman,
Subcommittee on Defense, Committee
on Appropriations, House of
Representatives

December 1990

ADP BUDGET

Potential Reductions to the Department of Defense's Budget Request

AD-A235 158



United States
General Accounting Office
Washington, D.C. 20548

Information Management and
Technology Division

B-241900

December 27, 1990

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives



Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

Dear Mr. Chairman:

On September 5, 1989, you asked us to review the Department of Defense fiscal year 1991 budget request for information technology resources to assist the Subcommittee in budget deliberations and continuing oversight responsibilities. In July and September 1990, we briefed your office on our findings. As agreed with your office, we also provided this information to the Subcommittee on Readiness, House Armed Services Committee, and the Subcommittee on Defense, Senate Committee on Appropriations.

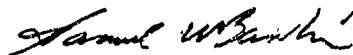
Although the Defense Appropriations Act for fiscal year 1991 was passed on November 5, 1990, as requested this report documents information provided prior to the passage of the act in briefings on selected Army, Air Force, Defense Logistics Agency (DLA), and the Office of the Secretary of Defense programs. This information can assist the Subcommittee in its continuing oversight of information technology resources.

We identified potential reductions of \$460.1 million to the Department of Defense's fiscal year 1991 budget request: --\$72.0 million from the Army (see appendix I), \$74.1 million from the Air Force (see appendix II), \$14.0 million from DLA (see appendix III), and another \$300 million from Defense's operation and maintenance request (see appendix IV). These potential budget reductions are based on our assessment of budget justifications, schedule slippages, and program changes. We also provide information on Defense's Corporate Information Management (CIM) initiative (see appendix V).

As requested by your office, we did not obtain official agency comments on this report. However, we discussed its contents with officials of the Army, the Air Force, DLA, and the Office of the Secretary of Defense, and have incorporated their views where appropriate. Our work was conducted between April and October 1990. Details regarding the objective, scope, and methodology of our work are described in appendix VI.

As agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the date of this letter. At that time, we will send copies to the Chairmen, House and Senate Committees on Appropriations; Chairmen, House and Senate Committees on Armed Services; Chairman, House Committee on Government Operations; Chairman, Senate Committee on Governmental Affairs; the Secretaries of Defense, the Army, the Air Force, and DLA; and the Director, Office of Management and Budget. We also will make copies available to others upon request. Should you have any questions or require additional information, please contact me at (202)275-4649. Major contributors to this report are listed in appendix VII.

Sincerely yours,



Samuel W. Bowlin
Director, Defense and Security
Information Systems

Contents

Letter		1
Appendix I		6
Potential Budget	Standard Installation/ Division Personnel System III	6
Reductions—Army	(SIDPERS-3)	
	Strategic Logistics Program (SLP)	9
Appendix II		13
Potential Budget	Automatic Communications Processors (ACP)	13
Reductions—Air	Super-High-Frequency Portable Terminals	16
Force	Ultra-High-Frequency Satellite Terminal System	17
Appendix III		19
Potential Budget	Standard Automated Materiel Management System/	19
Reductions—Defense	Immediate Improvement Initiative (SAMMS/I ³)	
Logistics Agency		
(DLA)		
Appendix IV		21
Consolidation Studies		
Appendix V		23
Corporate Information		
Management (CIM)		
Appendix VI		25
Objective, Scope, and		
Methodology		
Appendix VII		26
Major Contributors to		
This Report		

Tables

Table I.1: Potential Reductions to the Army's Information Technology Budget	6
Table I.2: SIDPERS-3 Fiscal Year 1991 Budget Request	8
Table I.3: SLP Fiscal Year 1991 Budget Request	10
Table II.1: Potential Reductions to Air Force Programs	13
Table II.2: ACP Fiscal Year 1989-90 Appropriations and the Fiscal Year 1991 Budget Request	14
Table II.3: Super-High-Frequency Portable Terminals	16
Table II.4: Ultra-High-Frequency Satellite Communications Terminals	18
Table III.1: Fiscal Year 1991 Funding Request for SAMMS/I ³	19
Table IV.1: Consolidation Studies Savings Anticipated in Fiscal Year 1991	21

Abbreviations

ACP	automatic communications processors
ADP	automated data processing
CIM	Corporate Information Management
GAO	General Accounting Office
IMTEC	Information Management and Technology Division
MAISRC	Major Automated Information System Review Committee
OSD	Office of the Secretary of Defense
RCAS	Reserve Component Automation System
SAMMS/I ³	Standard Automated Materiel Management System/Immediate Improvement Initiative
SIDPERS-3	Standard Installation/Division Personnel System III
SHFPT	super-high-frequency portable terminal
SLP	Strategic Logistics Program
UHFSTS	ultra-high-frequency satellite terminal system

Potential Budget Reductions—Army

We identified potential reductions of \$72.0 million to the Army's fiscal year 1991 request for information technology resources—\$4.9 million in procurement funds and \$67.1 million in operation and maintenance funds. Table I.1 shows the potential reductions to specific programs.

Table I.1: Potential Reductions to the Army's Information Technology Budget

Dollars in millions		
Army programs	Fiscal year 1991	
	Operation and maintenance	Other procurement
SIDPERS-3	\$12.9	\$4.9
SLP	54.2	
Total	\$67.1	\$4.9

Standard Installation/ Division Personnel System III (SIDPERS-3)

Description of the Program

SIDPERS-3, initiated in 1982, was to replace all existing Army military personnel systems used by the active Army, the National Guard, and the Reserves. In addition, it was to improve personnel services by automating functions such as organization and personnel recordkeeping, manpower accounting, and personnel management reporting. In fiscal year 1988, however, the Army decided to focus the SIDPERS-3 development effort on the active Army because of congressional concern about potential duplication between SIDPERS-3 and the Army Reserve Component Automation System (RCAS). RCAS is being developed to meet the unit-level administration and functional support requirements of the Army Reserve and National Guard.

In September 1989, the Major Automated Information System Review Committee (MAISRC) conducted a review of SIDPERS-3.¹ This review was the first conducted by MAISRC, since the Army's earlier cost estimates did

¹This committee was created within the Office of the Secretary of Defense (OSD) to provide oversight and ensure prudent fiscal management in acquiring major information systems.

not exceed the threshold for a major system.² SIDPERS-3 was in the design phase of life-cycle management (milestone I) with Army officials projecting design completion and review (milestone II) by February 1990. However, during the September review, MAISRC raised questions about whether the Army had selected the best program alternative in terms of system cost, hardware, and software. As a result, although the Army had spent about 7 years and more than \$20 million selecting the concept and design for SIDPERS-3, MAISRC told the Army to go back and revalidate the system's design, which included assessing available alternatives. Despite these concerns, MAISRC allowed the Army to continue design and development of the system.

On September 26, 1990, MAISRC held a milestone II review of SIDPERS-3 to consider the status of the program and whether its progress was sufficient for a milestone II approval. Although important progress had been made on development of the relational data base and on standardization of data elements, MAISRC found that (1) the problems identified at the previous MAISRC review had not been fully corrected, (2) design activities and development planning did not meet requirements for milestone II approval, and (3) life-cycle cost and benefit estimates could not be validated. On the basis of these findings, MAISRC denied milestone II approval for SIDPERS-3. MAISRC also placed restrictions on the Army's continued development of SIDPERS-3. The Army may continue only specific activities associated with data base development, data element standardization, and pilot software development. And, prior to returning for a MAISRC review, the Army must complete planning activities required by life-cycle management policy. In addition, MAISRC directed the Army to cease further obligations and expenditures on activities not specifically authorized in the MAISRC System Decision Memorandum dated October 30, 1990.

Funding requested in fiscal year 1991 for SIDPERS-3 includes funds for hardware, system design, training development, and testing. Table I.2 shows requested fiscal year 1991 funding.

²When a project exceeds program costs of \$25 million in one year, \$100 million total, or is of special interest to OSD, life-cycle management policies require that this system be subject to a MAISRC review or MAISRC can delegate this review to the sponsoring service.

Table I.2: SIDPERS-3 Fiscal Year 1991
Budget Request

Dollars in millions	
Source of funds	Fiscal year 1991
Operation and maintenance	\$12.9
Procurement	4.9
Military personnel	.2
Total	\$18.0

Source: Army 43A-1 exhibit for SIDPERS-3.

Results of Analysis

We identified potential reductions of \$17.8 million—\$12.9 million in operation and maintenance funds and \$4.9 million in procurement funds—to the Army's fiscal year 1991 budget request for SIDPERS-3. Our prior review showed that the Army has not adequately considered (1) alternatives to developing SIDPERS-3, and (2) the implications of Defense's ongoing effort to eliminate duplicate automated information systems in common administrative areas.³

Although the scope of SIDPERS-3 has been reduced significantly, the Army's cost estimate to develop and deploy the system increased from \$80 million in 1985 to \$151 million in 1990. In addition, the estimated date for full deployment has been extended by almost 3 years to March 1993. In September 1990, we reported that the Army has not adequately considered alternatives to SIDPERS-3. Analysis of alternative approaches is required to (1) ensure that the best available approach is selected, and (2) avoid duplication and unnecessary expenditures on new systems. In addition, in this report we raised our concern that the Army's assessments of alternatives have not considered the implications of Defense's ongoing initiative to eliminate duplicate automated information systems. One goal of Defense's Corporate Information Management initiative, which was started in October 1989, is to establish single automated information systems for areas such as warehousing and financial management that are common to all the military services and Defense agencies. Although military personnel is not one of the eight common areas already identified for study, the Secretary of Defense is likely to include military personnel management in the Corporate Information Management program before SIDPERS-3 can be fully developed and deployed.

³Army Automation: Decisions Needed on SIDPERS-3 Before Further Development (GAO/IMTEC-90-66, Sept. 5, 1990).

Given Defense's intention to establish single automated systems for common management areas, the Committee may want to direct the Secretary of Defense to determine whether it is prudent for the Army to continue to develop a unique military personnel system. Further, the Committee may also wish to withhold the \$17.8 million requested for the design and development of SIDPERS-3 in fiscal year 1991 until (1) the Secretary of Defense determines it is prudent to continue the development of SIDPERS-3, and (2) MAISRC determines that the system's concept is valid.

Strategic Logistics Program (SLP)

Description of the Program SLP was initiated in 1989 as an umbrella concept for modernizing and integrating Army logistics—encompassing supply, maintenance, transportation, services, and distribution management. In a January 1990 report, we recommended to the Secretary of the Army that a single supply system be established that provides the inventory supply system manager with systemwide asset visibility.⁴ The Army has established SLP as its method for achieving a single supply system. SLP is a long-term Army initiative to create an integrated, single logistics system for the early decades of the 21st century. SLP is designed to proceed in an evolutionary manner to enhance logistics through the use of rapid prototyping. Enhancements would be focused on existing systems where current processes are less than optimal, or where the potential exists to streamline overall logistics functions.

For fiscal year 1991, the Army is requesting \$54.9 million for SLP. The Army plans to spend \$31.8 million of this amount for (1) developing functional descriptions and software for the prototypes, and (2) conducting prototype testing. If the prototypes support the original hypothesis and are demonstrably cost effective, the concept will be turned over to the acquisition managers to either develop new systems to support the concept, or to enhance existing systems or those that are emerging (i.e., currently under development). The Army plans to spend an additional \$437.0 million on automation for SLP through fiscal year 1997 for a total of \$540.6 million. Table I.3 shows the fiscal year 1991 requested funding for SLP.

⁴Army Inventory: A Single Supply System Would Enhance Inventory Management and Readiness (GAO/NSIAD-90-53, Jan. 25, 1990).

Table I.3: SLP Fiscal Year 1991 Budget Request

Dollars in millions	
Source of funds	Fiscal year 1991
Operation and maintenance	\$54.2
Military personnel	.6
Total^a	\$54.9

^aNumbers are rounded and may not add precisely.

Source: Army exhibit 43A-1 for SLP.

Results of Analysis

Our analysis shows that this program is not adhering to several of the principles of Defense's life-cycle management policies. For example, it has not been reviewed by MAISRC, nor has MAISRC delegated review responsibility back to the Army. Also, SLP may be duplicating, in part, the work being undertaken by Defense's Corporate Information Management (CIM) initiative.

SLP Does Not Follow Defense Life-Cycle Management Policies

Although the Army did not request funding from Congress for SLP in fiscal year 1990, it redirected \$42.5 million from other programs to initiate this project. Our analysis of these reprogrammed funds showed that \$25.4 million (60 percent) of the \$42.5 million was designated for the contracting of activities associated with the development and implementation of prototype systems. When a project exceeds program costs of \$25 million in one year, \$100 million total, or is of special interest to OSD, life-cycle management policies require that this system be subject to a MAISRC review or MAISRC can delegate this review to the sponsoring service. However, we found that SLP was not reviewed by MAISRC or delegated to the Army for review.

Provisions of Defense's Directive 7920.1—Life-Cycle Management of Automated Information Systems—govern programs, projects, and activities concerned with the design, development, deployment, and operation of automated information systems. This directive establishes a milestone review and approval process as the basic control mechanism for life-cycle management. In addition, it establishes that approval must be obtained at each of six major life-cycle management phases, known as decision points, before program management may proceed to the next phase.

The first decision point within life-cycle management is the Need Justification Phase. The purpose of this phase is to document a mission need and validate that need. The following activities are to be completed during this phase:

- description of the existing functional concept and capabilities;
- identification of the mission, deficiencies, or opportunities;
- evaluation of the impact of deficiencies on the performance of the mission;
- optimization of functional processes and procedures; and
- identification of essential functional, technical, and financial constraints and assumptions that may affect potential alternative solutions.

The results of these activities are to be incorporated into the Mission Need Statement. Approval of the Mission Need Statement (milestone 0) ends this phase.

The SLP underwent a milestone 0 review by the Army's Major Automated Information System Review Council (Army Council) in March 1990. During that review, SLP was described as a program to execute and evaluate "proofs of principles," that is, rapid prototypes,⁵ and to generate requirements for improvements in Army logistics. However, we found that the SLP program office did not present the results of the required milestone 0 activities. Instead, SLP was presented as a logistics concept rather than a major automated system. The program office emphasized that a considerable portion of the SLP effort is to rework Army logistics doctrine, policy, procedures, etc. As a result, the Army Council determined that SLP is not an automated information system and therefore does not require further review and approval by the Army Council or OSD's MAISRC. However, it was also decided that any prototype developed for logistic application as a result of SLP analysis will go individually through the MAISRC process if the system meets the required dollar threshold.

We also found that, although the Army Council decided that the SLP program should not be subject to any further oversight reviews under life-cycle management policies, it directed SLP program officials to provide them with a matrix showing all the systems that SLP could affect, their program cost, and the last milestone approval of each, to define the baseline of logistics systems. In September 1990, we determined that the SLP program office had not yet developed this matrix but planned to hire a contractor to do so.

During our review we visited the office of Defense's Deputy Comptroller for Information Resources Management to discuss the SLP program. We told the Defense officials that we were concerned about the Army

⁵Currently, the Army is considering about 21 potential prototypes.

- description of the existing functional concept and capabilities;
- identification of the mission, deficiencies, or opportunities;
- evaluation of the impact of deficiencies on the performance of the mission;
- optimization of functional processes and procedures; and
- identification of essential functional, technical, and financial constraints and assumptions that may affect potential alternative solutions.

The results of these activities are to be incorporated into the Mission Need Statement. Approval of the Mission Need Statement (milestone 0) ends this phase.

The SLP underwent a milestone 0 review by the Army's Major Automated Information System Review Council (Army Council) in March 1990. During that review, SLP was described as a program to execute and evaluate "proofs of principles," that is, rapid prototypes,⁵ and to generate requirements for improvements in Army logistics. However, we found that the SLP program office did not present the results of the required milestone 0 activities. Instead, SLP was presented as a logistics concept rather than a major automated system. The program office emphasized that a considerable portion of the SLP effort is to rework Army logistics doctrine, policy, procedures, etc. As a result, the Army Council determined that SLP is not an automated information system and therefore does not require further review and approval by the Army Council or OSD's MAISRC. However, it was also decided that any prototype developed for logistic application as a result of SLP analysis will go individually through the MAISRC process if the system meets the required dollar threshold.

We also found that, although the Army Council decided that the SLP program should not be subject to any further oversight reviews under life-cycle management policies, it directed SLP program officials to provide them with a matrix showing all the systems that SLP could affect, their program cost, and the last milestone approval of each, to define the baseline of logistics systems. In September 1990, we determined that the SLP program office had not yet developed this matrix but planned to hire a contractor to do so.

During our review we visited the office of Defense's Deputy Comptroller for Information Resources Management to discuss the SLP program. We told the Defense officials that we were concerned about the Army

⁵Currently, the Army is considering about 21 potential prototypes.

Council's decision that SLP should not be subject to life-cycle management. We noted that the \$54.9 million being requested in fiscal year 1991 is for information technology activities such as the development and support of prototypes, which are usually subject to life-cycle management.

On the basis of our meetings, Defense officials requested a briefing on the SLP program from the Army. In mid-October 1990, the Army briefed Defense officials on SLP. As a result of this briefing, Defense officials were concerned about how the fiscal year 1991 funds requested for SLP are to be used. SLP program officials were asked to provide a breakdown of planned expenditures for fiscal year 1991. In addition, a Defense official indicated that MAISRC is considering making the Army's SLP a special interest program and subjecting it to MAISRC review.

SLP May Duplicate CIM Work

A goal of Defense's CIM initiative is to develop a vision for a particular functional business area that defines where Defense wants to be in the early 21st century in terms of that function, and develop a single, Defense-wide standard system in support of that area. The Army's SLP may be duplicating, in part, this effort. A goal of the Army's SLP is also to develop a vision of where Army logistics should be in the early 21st century and to develop an integrated, single logistics system—from "foxhole to factory."

Officials of Defense's CIM office were not familiar with the Army's SLP. As a result, they were uncertain whether the Army's program is duplicating the concept of the CIM initiative. However, on the basis of the information we shared with them, CIM officials said that on the surface there appears to be some duplication. CIM officials said they intend to review the Army's SLP.

Given that (1) senior Army and Defense officials have unanswered questions about SLP as a result of their preliminary evaluations, and (2) CIM officials are uncertain about whether the Army's SLP is duplicating the CIM concept, the Committee may wish to consider directing the Secretary of Defense not to obligate any funds for new SLP automation efforts until these issues are resolved.

Potential Budget Reductions—Air Force

We identified potential reductions of \$74.1 million to the Air Force's fiscal year 1991 request for information technology resources. Table II.1 shows the potential reductions to specific programs.

Table II.1: Potential Reductions to Air Force Programs

Dollars in millions

Programs	Fiscal year 1991			Total
	Other procurement	Aircraft procurement	Research development, test, and evaluation	
ACP	\$9.9	\$46.5		\$56.4
SHFPT			\$4.0	4.0
UHFSCCT	13.7			13.7
Total	\$23.6	\$46.5	\$4.0	\$74.1

Automatic Communications Processors (ACP)

Description of the Program

The Military Airlift Command has embarked on a modernization program to replace and enhance high-frequency radios on selected aircraft used for airlift operations, and on related ground-based systems. Automatic communications processors will be added to each radio. In all, the command plans to procure about 2,700 automatic communications processors. About 500 processors will be used with ground-based radios, and the remaining 2,200 will be used with radios installed on about 1,100 aircraft. The Air Force expects these processors to enhance radio performance by (1) automatically scanning and selecting proper radio channels and frequencies, (2) analyzing the quality of communication links, and (3) adding anti-jam protection for radio communications.

In fiscal year 1988, the Air Force authorized production of 200 automatic communications processors. In September 1988, after contract award, Defense promulgated an automatic link establishment standard—Military Standard 188-141A, Interoperability and Performance Standards for Medium- and High-Frequency Radio Equipment—to promote interoperability among high-frequency radio systems. In August 1989, the Air Force changed the production contract to redesign the automatic communications processor to meet requirements set forth in

the new military standard. Program management officials do not expect to complete qualification testing to ensure that this redesign meets all performance standards and requirements until January 1991. At that time, these officials expect to start production deliveries to retrofit the 200 automatic communications processors acquired under the 1988 contract. These deliveries will not be completed until January 1992.

Through a series of schedule delays, the Air Force has accumulated \$45.5 million from two appropriation accounts—aircraft procurement and other procurement—for the acquisition of automatic communications processors through fiscal year 1990. Table II.2 shows funds (1) received in fiscal years 1989 and 1990, and (2) requested for fiscal year 1991 for ACP.

**Table II.2: ACP Fiscal Year 1989-90
Appropriations and the Fiscal Year 1991
Budget Request**

Dollars in millions				
Source of funds	Fiscal year			Total
	1989	1990	1991	
Aircraft procurement	\$13.5	\$22.0	\$10.9	\$46.4
Other procurement	0.9	9.0	0	9.9
Total	\$14.4	\$31.0	\$10.9	\$56.3

Source: Extracted from information provided by the program office.

Results of Analysis

We identified potential reductions of \$10.9 million in the Air Force's fiscal year 1991 budget request. Our analysis shows that this \$10.9 million is not needed since acquisition of additional automatic communications processors is premature. Further, we identified \$45.4 million in prior-year funds that were prematurely obligated but not yet spent. These funds could be used to offset the Air Force's overall fiscal year 1991 budget request.

Acquisition of New Processors Should Not Be Authorized

In January 1990, we reported that the Air Force had experienced schedule delays in getting technical engineering changes made so that the processors will comply with military standard 188-141A.¹ At that time, the Air Force expected to complete engineering work in December 1989, and to commence ordering compliant processors. We found that the Air Force has again experienced schedule delays; it does not plan to complete formal qualification tests to ensure that these processors comply with the military standard until January 1991. In addition, the

¹ADP Budget: Potential Reductions to the Department of Defense's Budget Request (GAO/IMTEC-90-12, Jan. 10, 1990).

Air Force has not yet established estimated life-cycle costs for these automatic communications processors. This step is required by Defense regulations before a system is initially deployed.

The number of processors needed to demonstrate initial operational capability by September 1992 is well within the 200 processors already acquired under the 1988 contract. The program manager told us that 23 processors are needed for this effort. Nevertheless, in June 1990 the Air Force awarded a follow-on production contract to complete its planned acquisition. This award was made 7 months before qualification tests were to be completed to ensure that the engineering changes made to the processors meet military standards. According to an Air Force official, this contract contains a minimum order quantity of one processor.

The program manager also told us that production of these processors will not be authorized until after the engineering changes have been tested and certified. However, Defense Directive 5000.3, Test and Evaluation, requires that a system's operational effectiveness be verified before allowing the system to proceed with full-rate production. Since (1) initial operating capability is not scheduled until September 1992, and (2) the Air Force has already acquired more than enough processors to demonstrate initial operating capability, we believe the Air Force should not authorize any additional production in fiscal year 1991.

However, in June 1990, the Air Force obligated \$9.9 million in Other Procurement funds and \$29.6 million in Aircraft Procurement funds to the follow-on production contract. This action alone will procure 815 automatic communications processors: 520 processors for aircraft radios (aircraft procurement funds), and 295 for ground radios (other procurement funds). The Air Force is also using some of these Aircraft Procurement funds to procure other items such as installation kits, engineering services for installation, test equipment, and technical manuals.

In its fiscal year 1991 budget submission, the Air Force has requested an additional \$10.9 million in Aircraft Procurement funds to continue the production contract for automatic communications processors. According to an Air Force official, these fiscal year 1991 funds should provide an additional 172 automatic communications processors to the Air Force inventory. As we have already indicated, however, the Air Force needs only 23 of the 200 processors already acquired under the 1988 contract to satisfy planned program needs through September 1992.

Because the Air Force needs less than the 200 processors already acquired to carry the program through its determination of initial operational capability in September 1992, the Committee may wish to consider using the unspent \$35.6 million in aircraft procurement funds and \$9.9 million in other procurement funds for fiscal years 1989 and 1990 (see table II.2) to offset fiscal year 1991 budget requests for other Air Force programs, and to reduce the \$10.9 million requested for aircraft procurement in fiscal year 1991 for automatic communications processors.

Super-High-Frequency Portable Terminals

Description of the Program The Air Force is currently exploring the use of small, lightweight, and portable super-high-frequency satellite communications terminals to provide reliable and secure voice and data communications for highly mobile combat teams. Such teams include forward air controllers, special operations forces, and Military Airlift Command combat control teams. The Super-High-Frequency Portable Terminal System is in concept development. To assess the feasibility of these terminals, the Air Force plans to conduct a demonstration and validation project in February 1992. Table II.3 shows fiscal year 1990 and 1991 research, development, test, and evaluation funds to be used for this project.

**Table II.3: Super-High-Frequency
Portable Terminals**

Dollars in millions		
Source of funds	Fiscal year 1990	Fiscal year 1991
Research, development, test, and evaluation	\$2.7	\$1.3
Total	\$2.7	\$1.3

Source: Extracted from information provided by the program office.

Results of Analysis We identified a potential reduction of \$4.0 million (\$2.7 million of which is still available from fiscal year 1990 appropriated funds) to the fiscal year 1991 Air Force budget request for research, development, test, and evaluation funds. This reduction is based on the fact that the Air Force is planning to spend \$4 million on a demonstration system without

(1) evaluating alternative solutions to satisfy its needs, and (2) determining whether similar systems or capabilities are already available within other military services for satisfying such needs.

We found that the Air Force has not prepared studies assessing its needs, existing capabilities, missions, and constraints or assumptions that may affect alternative solutions. Nor has it estimated the costs and benefits to be derived, or assessed the option of using similar communications terminals that may be already under development or existing within the Army, the Navy, or the Marine Corps. Defense policy for establishing requirements can be found in Directive 5000.1 for major and nonmajor defense acquisitions. This directive provides that the basis of need or requirement for each new acquisition must be thoroughly reviewed and validated, and that development of new technologies must be undertaken only after carefully assessing alternative approaches to satisfy the need or requirements.

Therefore, the Committee may wish to direct the Secretary of the Air Force not to obligate the \$4.0 million targeted for this demonstration system until the Air Force (1) evaluates alternatives, and (2) determines whether similar systems or capabilities are already available within the other military services for satisfying such needs.

Ultra-High-Frequency Satellite Terminal System

Description of the Program

The Ultra-High-Frequency Satellite Communications Terminal program will provide both air and ground users with secure voice and data communications capabilities. These terminals are expected to allow many users to share a satellite channel. The Air Force expects to spend at least \$74 million on this program. Table II.4 shows funds to be used for acquiring 66 terminals and 2 network control stations for this program.

Table II.4: Ultra-High-Frequency Satellite Communications Terminals

Dollars in millions		
Source of funds	Fiscal year 1990	Fiscal year 1991
Other procurement	\$7.2	\$6.5
Total	\$7.2	\$6.5

Source: Extracted from information provided by the program office and from Procurement Programs (P-1) Department of Defense Budget For Fiscal Year 1991, and the Department of the Air Force's procurement-backup book.

Results of Analysis

We identified a potential reduction of \$13.7 million (\$7.2 million of which is still available from its fiscal year 1990 appropriated funds) to the Air Force's fiscal year 1991 budget request. While the Air Force plans to acquire these terminals and network control stations, it has experienced system integration problems and schedule delays in building and testing a prototype for the system. As a result, this funding may be premature at this time.

Because of hardware integration problems and subsequent delays in system development, testing, and evaluation, the Air Force has slipped its schedule for the Ultra-High-Frequency Satellite Terminal System Program. The Air Force had originally planned to complete initial operational testing and evaluation by July 1990, but later slipped this milestone by 8 months to March 1991. In October 1990, however, an Air Force program official told us that this testing and evaluation milestone may be further delayed. The Committee may wish to direct the Secretary of Defense not to obligate the \$13.7 million in procurement funds targeted for the Ultra-High-Frequency Satellite Communications Terminal program until the Air Force (1) completes its initial operational testing and evaluation, and (2) establishes the number of terminals and network control stations needed in fiscal year 1991.

Potential Budget Reductions—Defense Logistics Agency (DLA)

We identified a potential reduction of \$14.0 million to DLA's fiscal year 1991 request for other procurement funds. This reduction is possible because of schedule slippage.

Standard Automated Materiel Management System/Immediate Improvement Initiative (SAMMS/I³)

The SAMMS/I³ initiative is a modernization of the automated supply support functions of DLA's operational Standard Automated Materiel Management System (SAMMS). SAMMS supports the DLA integrated materiel management mission with automated functions for distribution, requirements, supply control, financial management, accounting and billing, contractor payment, and cataloging processes. The purpose of the SAMMS/I³ initiative is to redesign the system's distribution and requirements subsystems—which make up about 90 percent of the application software—and to provide a modern hardware and data base management system platform for operation of the subsystems. Table III.1 shows fiscal year 1991 funding requested for SAMMS/I³.

Table III.1: Fiscal Year 1991 Funding Request for SAMMS/I³

Dollars in millions	
Source of funds	Fiscal year 1991
Procurement	\$14.0
Operation and maintenance	14.4
Total	\$28.4

Source: Extracted from DLA's fiscal year 1991 budget request.

Results of Analysis

We identified a potential reduction of \$14.0 million from DLA's fiscal year 1991 request for procurement funds for SAMMS/I³. Our analysis shows that this program has experienced delays and that the request for procurement funds is premature at this time.

In fiscal year 1991, DLA is requesting \$14.0 million in procurement funds to purchase a computer system for a prototype test-bed platform, which will be used to test and implement the SAMMS/I³ software. Our analysis showed that because of a 24-month schedule slippage the platform will not be needed until at least fiscal year 1992. Further, we determined that, in the interim, any necessary design functions to complete concept development and procure and test a Data Base Management System could be accommodated by DLA's current operational test-bed system at DLA's Central Design Activity in Columbus, Ohio. According to DLA's latest schedule, the SAMMS/I³ program will go

before the MAISRC for a milestone II (Definition/Design) review in September 1991. We believe that it would be premature for DLA to procure a large computer test-bed for SAMMS/I³ until MAISRC has reviewed and approved the program at milestone II. Therefore, the Committee may wish to consider reducing DLA's fiscal year 1991 request for procurement funds by the \$14.0 million targeted for SAMMS/I³.

Consolidation Studies

Description of the Program

In July 1989, the Department of Defense completed a management review that identified various initiatives that are expected to achieve substantial dollar savings in operation and maintenance funds beginning in fiscal year 1991 and continuing at least through fiscal year 1995. Defense expects to achieve these savings by streamlining management and operations across the Department and its components. One example of this streamlining effort can be found in an initiative called Consolidation Studies.

The purpose of this initiative is to achieve savings by (1) consolidating operations in support areas by eliminating redundant functions, (2) improving these operations through better systems and procedures, and (3) reducing headquarters operations without impairing senior management's control. The Deputy Secretary of Defense established study teams to review possible consolidations, management changes, and associated savings in the following support areas: (1) supply depots, (2) inventory control points, (3) maintenance depots, (4) automated data processing (ADP) design centers and operations, (5) accounting operations and finance centers, and (6) research and development laboratories and test facilities. Savings from these consolidations are estimated by Defense at \$5.6 billion through fiscal year 1995. Table IV.1 shows savings anticipated in fiscal year 1991 for this initiative.

**Table IV.1: Consolidation Studies
Savings Anticipated in Fiscal Year 1991**

Dollars in millions	
Source of funds	Fiscal year 1991
Anticipated savings	\$300.0
Total	\$300.0

Source: Budget of the United States Government Fiscal Year 1991.

Results of Analysis

We identified a potential reduction of \$300 million to Defense's fiscal year 1991 budget request. Although Defense anticipates savings in fiscal year 1991 because of the consolidation of support areas and reported this anticipated savings in the President's budget, no specific appropriation request has been reduced.

As part of our review of Defense's ADP budget request, we examined the Department of Defense Justification of Estimates for Defense Management Report Initiatives. This document, published in January 1990, identifies monetary savings that Defense anticipates will result from various initiatives currently planned or under way. For most of these

initiatives, the military agencies offset (that is, reduced) their fiscal year 1991 budget requests by the amount of savings expected. However, in reviewing this document, we noted that the anticipated savings expected to occur in fiscal year 1991 from the consolidation of support areas were not offset directly against an appropriation request.

We discussed the consolidation of ADP design centers and operations with Defense's Deputy Comptroller for Information Resources Management and her staff. These officials told us that as of July 1990 none of the teams reviewing the consolidation of support areas had completed their studies, and until the studies are approved by the Deputy Secretary of Defense, they would be unable to tell us how much of the \$300 million anticipated savings for the consolidation studies would be used to reduce Defense's ADP budget. But, they did acknowledge that at some time during fiscal year 1991 the \$300 million anticipated savings would be distributed to specific appropriations. However, through September 1990, none of the anticipated savings has been identified or distributed against the fiscal year 1991 budget request.

Since Defense anticipates savings of \$300 million from the consolidation of support areas, but did not offset any specific appropriation request, the Committee may wish to (1) reduce \$300 million from one or more of the specific appropriation requests in order to ensure that the anticipated savings are actually taken, or (2) direct the Secretary of Defense to report back to the Committee the actual savings realized during fiscal year 1991 as a result of consolidations.

Corporate Information Management (CIM)

Description of the Program

In October 1989, the Deputy Secretary of Defense announced an initiative to improve the standardization, quality, and consistency of data from Defense's multiple management information systems. This overall initiative, referred to as CIM, is intended to eliminate multiple automated information systems or software in common administrative areas that meet the same functional requirements. Eight functional areas have been identified so far: (1) civilian payroll, (2) civilian personnel, (3) contract payment, (4) financial operations, (5) government furnished material, (6) materiel management, (7) medical, and (8) warehousing. Within each of these areas, an effort has been established to develop uniform and consistent information requirements and data formats. These standard functional and information requirements will be used to develop standard integrated management information systems. Further, according to CIM program documentation, Defense plans to eventually consider all administrative areas within the Department as future candidates for inclusion in the CIM program.

Defense annually spends approximately \$9 billion to acquire, operate, and maintain general-purpose automated information systems for administrative uses. And, according to Defense reports, over \$4 billion of this amount is annually spent on new development and modernization (i.e., enhancement). The Office of the Secretary of Defense (OSD) estimates that about one quarter (or approximately \$1 billion) of the amount annually spent within Defense on new development and modernization could eventually be saved as a result of the CIM initiative. In addition, as CIM systems are deployed, further savings are expected to result from reduced operation and maintenance costs. In November 1989, Defense issued its decision to reduce the information technology budgets of its components to reflect the savings anticipated from CIM. However, rather than have the military services and Defense agencies immediately trim \$1 billion from their budget requests, OSD decided to phase in the reduction. Each of the services was directed to take a reduction of \$100 million in fiscal year 1991, \$200 million in fiscal year 1992, and about \$300 million in fiscal years 1993 through 1995.

Results of Analysis

We found that OSD did not provide any specific direction or guidance to the services on how to apply the CIM reductions. As a result, fiscal year 1991 budget reductions were inconsistently applied. In addition, the services and OSD have yet to agree on (1) an inventory of systems within each of the eight functional areas, and (2) the effect CIM will have on these systems. Therefore, we believe that some of the funds requested by the services for new development and modernization in fiscal year

1991 may be used for systems that could be significantly altered or canceled in the future because of CIM.

CIM Reductions Inconsistently
Applied

Although OSD directed the services to reduce their budgets because of the CIM effort, it provided no guidance on how to apply the reduction. Army, Navy, and Air Force officials told us that decisions regarding where to apply the reduction were left to their discretion. As a result, reductions were not necessarily taken from systems within the CIM functional categories.¹

Inventory of CIM Systems
Lacking

Neither OSD nor the military services have come to agreement on an inventory of systems under development or modernization within each of the CIM functional areas. OSD has twice attempted to obtain this information. Data calls were issued, by memorandum, in June and August 1990 to each of the services. And, although the services provided responses to each of the data calls, OSD officials are still not satisfied with the quality of the responses received. Without such an inventory, we were unable to accurately determine what portion of the services' fiscal year 1991 requested funds are for CIM-related systems.

Since OSD and the services have not come to an agreement on an inventory of CIM-related systems, the Congress has no assurance that some of the funds being requested in fiscal year 1991 for system development and modernization will not be spent on systems that will be significantly altered or canceled because of CIM.

¹At the time the services were directed to reduce their budgets, only six functional areas had been identified for review under CIM.

Objective, Scope, and Methodology

Our objective was to review Defense's fiscal year 1991 budget request for selected information technology programs and to provide information to the Subcommittee to assist it in determining whether the programs should be funded in the amounts requested. We performed our work in the Washington, D.C., area and in Boston, Massachusetts, between April and October 1990.

To obtain budget request information, we examined the Procurement Programs (P-1) Department of Defense Budget for Fiscal Year 1991, as well as the procurement backup books for the Departments of the Army and Air Force, and the Defense Logistics Agency, which contain information on equipment, contracts, and schedules (including Department of Defense forms P-22 and P-40). We also examined the information technology systems budgets (which contain exhibits 43A-E) for the Office of the Secretary of Defense (OSD), the Departments of the Army and Air Force, and the Defense Agencies. In addition, we reviewed the quarterly reports provided by the Defense components to OSD's Major Automated Information System Review Committee.

We met with officials from OSD, the Defense Logistics Agency, the Army, and the Air Force to obtain information on the eight programs covered in this report. We discussed issues covered in this report with officials from OSD, the Defense Logistics Agency, the Army, and the Air Force, and have incorporated their comments where appropriate. As requested, however, we did not obtain official agency comments on this report. We conducted our work in accordance with generally accepted government auditing standards.

Major Contributors to This Report

Information Management and Technology Division, Washington, D.C.

Joseph T. McDermott, Assistant Director
Carl M. Urie, Assistant Director
Sandra A. Harris, Evaluator-in-Charge
Joseph A. DeBrosse, Senior Evaluator
Kelly A. Wolslayer, Computer Scientist

Boston Regional Office

Frederick R. Cross, Jr., Regional Assignment Manager
Lloyd J. Miller, Staff Evaluator
Martin F. Lobo, Staff Evaluator